



U.S. ENVIRONMENTAL PROTECTION AGENCY - REGION 6

FACT SHEET
FINAL APPROVAL
OF THE HOUSTON/GALVESTON OZONE
ATTAINMENT DEMONSTRATION

October 15, 2001

Today's Announcement

- ! EPA is approving the clean air plan for the Houston/Galveston eight county ozone nonattainment area as meeting the attainment demonstration requirements of the Clean Air Act.
- ! This demonstration shows, through photochemical modeling and other evidence, that through a combination of adopted measures, recent legislation, and commitments to adopt additional measures, the Houston Galveston area will attain the one-hour ozone standard by November 15, 2007.
- ! Ozone is formed in the atmosphere from a reaction between oxygen and volatile organic compounds (VOCs) and oxides of nitrogen in the presence of sunlight.
- ! For the Houston/Galveston area, the science indicates that NO_x emission reductions are the most effective way to reduce ozone.
- ! The plan call for approximately a 75% reduction in NO_x emissions and a 40% reduction in VOC emissions off of 1993 levels. The majority of the NO_x emissions will occur in the coming years.
- ! EPA is under a court settlement agreement to complete action to approve the Houston plan by October 15, 2001, or to propose a federal implementation plan.

Background

The Houston/Galveston ozone nonattainment area contains eight counties, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller. The area was classified as severe ozone nonattainment under the 1990 Clean Air Act. As such, its attainment date was established as November 15, 2007.

The attainment demonstration plan on which this action is being taken today, was submitted to EPA on December 22, 2000 by then Texas Governor George W. Bush. The plan was supplemented by Texas Governor Rick Perry on October 4, 2001.

EPA proposed to approve the attainment demonstration SIP on July 12, 2001 in an announcement in the Federal Register. The plan for Houston includes a range of actions to reduce air pollution focusing

on local and regional controls, a mid-course review in May 2004 to assess how controls are working and a revised plan by this date, if needed, and enforceable commitments to adopt innovative and technology forcing air pollution control measures to make up a shortfall of approximately 6%.

In addition to approving the overall attainment demonstration, EPA is announcing 7 additional actions that support the attainment demonstration: These are:

- 1) approval of stationary source nitrogen oxide regulations,
- 2) approval of a nitrogen oxide emissions cap and trade program,
- 3) approval of the Texas vehicle inspection and maintenance program,
- 4) approval of orders for airport ground support equipment and vehicle idling,
- 5) approval of lawn service equipment operating restrictions and non-road large spark ignition engines to conform to California level requirements,
- 6) approval of the vehicle miles traveled (VMT) offset plan demonstrating that mobile source reduction strategies for Houston will be greater than emission increases from future growth in vehicle miles traveled, and
- 7) approval of low emission diesel regulations.

SIP strategies

The strategies in this plan being approved will reduce emissions of nitrogen oxides, the major contributor to ozone formation from 1284 tons per day to a level of 374 tons per day. The plan also calls for an additional 6 % reduction or 56 tons per day reduction, in order to reach attainment. The State has committed to the adopt of regulations to address this shortfall.

The strategies for the Houston/Galveston area include:

- 90% reduction from industrial and utility sources of nitrogen oxide emissions.
- Tail pipe testing expanded to all 8 counties which now will require testing cars while running on a dynamometer. 1995 and newer cars will be tested using the on-board diagnostic computer read out instead of a tail pipe test. The tests will still be available at your local inspection station.
- California Standards for large spark ignition engines
- Low emission diesel fuel for 110 counties in the eastern half of Texas
- Orders for reductions in airport ground support equipment
- Commercial lawn service operating restriction
- Reductions from the Texas Emission Reduction Program (SB 5).
- Speed limit reductions,
- Voluntary mobile emission programs

Enforceable Commitments

Approval of this plan is based on several enforceable commitments. These include a commitment to adopt at least an additional 56 tons per day of nitrogen oxide reductions by May 1, 2004, a commitment for 25% adoption of this shortfall by December 2002, a commitment to perform a mid-course review and to submit a new mid-course review SIP by May 1, 2004.

Innovations:

There are several innovative aspects to the plan for Houston. First the point source rules, which are some of the most stringent in the country, will be enforced through an innovative cap and trade program which will allow industries to trade allowances between sources to find the most cost-effective way to achieve the required reductions. The program is the first to be approved under the new Economic Incentives Program.

Second, the plan takes into account expected emission reductions from the Texas Emission Reduction Plan created by Senate Bill 5. This program provides incentives for diesel equipment operators to install cleaner equipment. This program is expected to result in the clean up of a wide variety diesel equipment. Senate Bill 5 also provides for new energy efficiency standards and programs to further reduce emissions.

Third, 3% of the emission reductions in the plan are to be achieved under EPA's voluntary mobile emissions program. This program was created to encourage innovation and new technologies. In Houston, it includes reductions from a commuter choice program, clean up of emissions from the Bolivar Ferries, reductions achieved by the City of Houston and the Port of Houston from clean up of their diesel fleets.

Houston/Galveston Ozone Problem

- ! The ozone problem in the Houston/Galveston area is one of the most serious in the country. In 2000, the one hour ozone standard was exceeded 44 time in the area, more than anywhere else in the country. In comparison, Los Angeles, the only extreme ozone area had 40 exceedance in 2000. In 2001, the number of exceedance in Houston for the one-hour ozone standard was 30 days compared with Los Angeles at 37.

Impact of Ozone on Public Health

- ! Exposure to ambient ozone concentrations, even at low levels, can cause respiratory symptoms such as a reduction in lung function, chest pain, and cough. Repeated exposure can make people more susceptible to respiratory infection and lung inflammation, and can aggravate pre-existing respiratory diseases.
- ! Children are most at risk from exposure to ozone because they are active outside, playing and exercising during the summertime when ozone levels are at their highest. The elderly and those with respiratory diseases such as asthma are also at high risk.
- ! Long-term exposure to ozone can cause irreversible changes in lung structure, which can lead to chronic respiratory illnesses such as emphysema, chronic bronchitis, and/or premature aging of the lungs.

Further Information:

- ! A copy of the final notice will be available on the EPA Region 6 website,
<http://www.epa.gov/earth1r6/news/>